

Correspondence

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TO THE EDITOR, *Genitourinary Medicine*

Comparisons of standard diagnostic techniques with Gonostat in detecting gonococcal urethritis in men

Sir,

We have recently compared routine techniques used in the diagnosis of gonococcal urethritis in men with the new rapid swab test, Gonostat (Associated Biolabs, England). Gonostat has been suggested for fast results with an accuracy greater than Gram staining techniques.

The test kit consists of a vial containing a buffered sterile solution to which a reagent disc is added. After one minute a sterile swab containing a sample of discharge is dipped into the vial. Examination of the swab tip should show a deep purple colour if the gonococcus is present. Further examination for non-gonococcal urethritis is suggested if there is no colour change. The technique is suitable only for male patients who have not passed urine for at least one hour. It should not be used in those with a history of meningitis.¹

In our comparison with routine Gram stained smear and culture we took three swabs, using the first sample for the Gonostat test and the second and third for smear and culture respectively. Gram stained smears were by conventional techniques, and cultures were taken in Amies' transport medium then transferred to prewarmed modified Thayer-Martin (Oxoid) and chocolate agar media. In half the cases the culture medium was inoculated directly. Incubation was at 37°C in 8% carbon dioxide. Colonies morphologically resembling those of the gonococcus were subject to identification by Gram stain, oxidase testing, rapid sugar test, and carbohydrate substrate disc testing. Specimens were taken by the same person at each of our clinics, and the Gonostat colour change was read by the same operator under the same reproducible conditions of artificial light.

Table I shows the results obtained from 85 consecutive unselected male patients presenting with observable urethral discharge, who fulfilled the correct criteria for the use of Gonostat.

TABLE I *Results of three tests of specimens from 85 men*

Smear, culture, and Gonostat negative	32
Smear, culture, and Gonostat positive	19
Smear and culture positive, Gonostat negative	31
Smear and culture negative, Gonostat positive	1
Smear and Gonostat positive, culture negative	2

Table II shows the results of Gram stained smears and the Gonostat test compared with culture results.

TABLE II *Smear and Gonostat test results compared with those of culture*

	Smear	Culture	Gonostat
Positive	50	50	19
Negative	33	35	32
At variance with culture result	2		34
Total	85	85	85

Thus if efficiency is defined as:

$$\frac{\text{positive results confirmed by culture}}{\text{total number of tests}} \times 100$$

sensitivity is defined as:

$$\frac{\text{positive results confirmed by culture}}{\text{number of positive culture results}} \times 100$$

and if specificity is defined as:

$$\frac{\text{negative results confirmed by culture}}{\text{number of negative culture results}} \times 100$$

then for Gonostat the efficiency was 60%, the sensitivity was 38%, and the specificity was 91%; and for Gram stained smears the efficiency was 97%, the sensitivity was 100%, and the specificity was 94%.

Our results are thus at odds with the manufacturers' published data,¹ despite our tailoring our technique to give Gonostat the best possible opportunity.

We are concerned that three of us, working independently, find that Gonostat, which is more costly than smear testing,

offers little advantage in time saving and none in reliability. We are also concerned that the inference made in the leaflet accompanying the test materials suggests that NGU is the diagnosis when the Gonostat test gives negative results.

This study suggests that Gonostat cannot be used as a routine test in genitourinary medicine clinics, and we would view with alarm its use in any general practitioner's surgery or in departments of gynaecology.

Yours faithfully,

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Reference

1. Radioimmunoassay Corporation. *Gonostat*. (Manufacturer's published data).

TO THE EDITOR, *Genitourinary Medicine*

Effect of epidemiological treatment of sexual contacts in preventing recurrences of non-gonococcal urethritis¹

Sir,

I am grateful to Dr Evans (*Genitourin Med* 1985; 61:140) for re-emphasising the point made in my account,¹ that patients taking shorter courses of treatment were a self selected group. I cannot, however, accept his proposal that the inferior results in this group are "probably" due to selection bias alone, as that would be at variance with the evidence from most of the work investigating the value of longer courses of tetracyclines (see table). I have compared my results with those of a series of trials in which long and short courses of treatment were compared in the same centres, and where diagnostic and follow up criteria can be assumed to be identical.

The suggestion that there might have been a deterioration in the effectiveness of tetracyclines in the treatment of NGU be-